

1-888-340-0482
Monday-Friday
8:30-5:30 Central Time



Keys Fitness Products, L.P.
4009 Distribution Dr.
Suite 250
Garland, Texas 75041

CardioMax

ET850D

OWNER'S MANUAL



QUESTIONS?
Call Our Toll Free
Keys Fitness Helpline
1-888-340-0482



Keys Fitness Products, L.P.
P.O. Box 551239
Dallas, Texas 75355-1239

CAUTION!
Please read the precautions and
instructions in this manual before
using this equipment. Please save
this manual for future reference.



**Keys Fitness is committed
to quality products that
demonstrate our commitment
to excellence!**

**Keys Elliptical Trainer
Model: ET850D**

Questions?

Please call if:

- you need assistance about operating your exercise unit
- parts are missing
- parts become worn or need to be replaced

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Monday-Friday
8:30-5:30 Central Time**

***When requesting information please
have the following available:***

- The Name
- The Model
- The Part Number
- The Description

**KEYS FITNESS PRODUCTS, LP -
LIMITED WARRANTY**

PRODUCT:

KEYS ELLIPTICAL TRAINER 850 DUAL ACTION

HOME USE WARRANTY:

Frame: Lifetime, Parts: 2 Years, Labor: 1 Year

This Limited Warranty applies in the United States and Canada to products manufactured or distributed by Keys Fitness Products, LP ("Keys") under the KEYS brand name. The warranty period to the original purchaser is listed above in the table.

Keys warrants that the Product you have purchased for use from Keys or from an authorized Keys reseller is free from defects in materials or workmanship under normal use during the warranty period. Your sales receipt, showing the date of purchase of the Product, is your proof of purchase. This warranty only extends to you, the original purchaser. It is not transferable to anyone who subsequently purchases the Product from you. It excludes expendable parts (wear items). Wear items pertain to components that might need to be replaced due to normal wear and tear. These items vary per product but will include computer overlays, pedal straps, rope cords, seats, grips, chains, bottom bracket assemblies, pads, upholstery, pulleys, bearings, etc. Please contact a Keys Fitness customer service representative for specifics on wear items. This Limited Warranty becomes VALID ONLY if the product is purchased through a Keys Fitness authorized dealer unless otherwise authorized by Keys Fitness in writing.

During the warranty period Keys will repair or replace (at Keys' option) the product if it becomes defective, malfunctions, or otherwise fails to conform with this Limited Warranty under normal use. In repairing the Product, Keys may replace defective parts, or at the option of Keys, serviceable used parts that are equivalent to new parts in performance. All exchanged parts and Products replaced under this warranty will become the property of Keys. Keys reserves the right to change manufacturers of any part to cover any existing warranty.

This warranty DOES NOT COVER shipping charges, export taxes, custom duties and taxes, or any other charges associated with transportation of the parts or Product.

To obtain warranty service, you must contact a Keys authorized retailer, service technician or Keys Fitness at our phone numbers located in this manual. Any parts determined to be defective must be returned to Keys to obtain warranty service. You must prepay any shipping charges, export taxes, custom duties and taxes, or any other charges associated with transportation of the parts or Product. In addition, you are responsible for insuring any parts or Product shipped or returned. You assume the risk of loss during shipment. You must present Keys with proof-of-purchase documents (including the date of purchase). Any evidence of alteration, erasing or forgery of proof-of-purchase documents will be cause to void this Limited Warranty.

This warranty does not extend to any product not purchased from Keys or from an authorized Keys reseller. This Limited Warranty does not extend to any Product that has been damaged or rendered defective; (a) as a result of accident, misuse, or abuse; (b) by the use of parts not manufactured or sold by Keys; (c) by modification of the Product or normal wear and tear; (d) operation on incorrect power supplies; or (e) as a result of service by anyone other than Keys, or an authorized Keys warranty service provider. Product on which the serial number has been defaced or removed is not eligible for warranty service. Should any Product submitted for warranty service be found ineligible, an estimate of repair cost will be furnished and the repair will be made if requested by you upon Keys' receipt of payment or acceptable arrangements for payment.

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY, KEYS MAKES NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. KEYS EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED IN THIS LIMITED WARRANTY. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED TO THE TERMS OF THIS LIMITED WARRANTY. NEITHER KEYS NOR ANY OF ITS AFFILIATES SHALL BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSION MAY NOT APPLY TO YOU. This Limited Warranty gives you specific legal rights and you may also have other rights that may vary from state to state. This is the only express warranty applicable to Keys-branded products. Keys neither assumes nor authorizes anyone to assume for it any other express warranty.

PLEASE SEND IN THE ATTACHED WARRANTY CARD WITHIN TEN (10) DAYS OF PURCHASE TO REGISTER YOUR UNIT WITH KEYS FITNESS PRODUCTS, LP.

MAIL WARRANTY CARD TO:
KEYS FITNESS PRODUCTS, PO BOX 551239, DALLAS, TX 75355

Before You Start

Thank you for purchasing a Keys Elliptical Trainer! This quality product you have chosen was designed to meet your needs for cardiovascular exercise.

Prior to assembly, remove components from the box and verify that all the listed parts were supplied. Assembly instructions are described in the following steps and illustrations.

Important Safety Information WARNING!

- 1) Before using this exercise unit or starting any exercise program, consult your physician. This is especially important for persons over the age of 35 and/or persons with pre-existing health problems. Keys Fitness Products LP assumes no responsibility for personal injury or property damage sustained by or through the use of this product.
- 2) To reduce the risk of electrical shock, burns, fire or other possible injuries to the user, it is important to review this manual and the following precautions before operation.

Safety Precautions and Tips

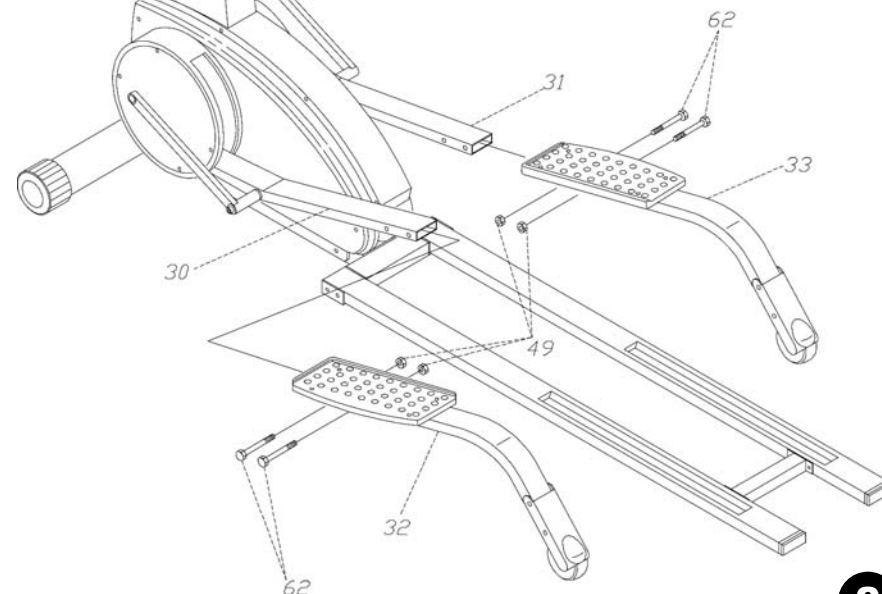
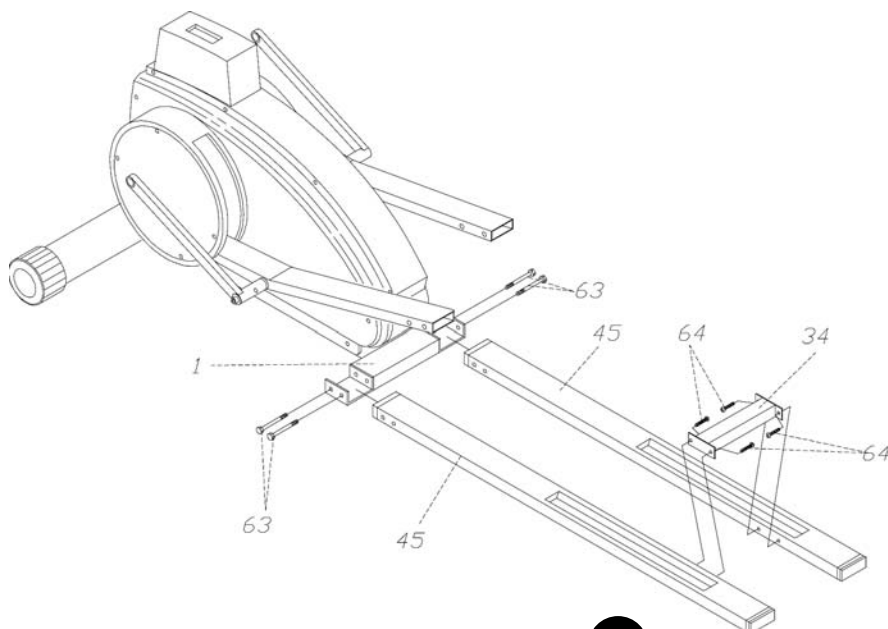
It is the owner's responsibility to ensure that all users of this exercise unit have read the Owner's Manual and are familiar with warnings and safety precautions.

- This elliptical trainer has a user maximum capacity of 300 pounds.
- The Keys Elliptical Trainer should only be used on a level surface and is intended for indoor use only. It should not be placed in a garage, patio or near water. Keys recommends an equipment mat be placed under the unit to protect the floor or carpet and for easier cleaning.
- Wear comfortable, good-quality walking or running shoes and appropriate clothing. Do not use this exercise unit with bare feet, sandals, socks or stockings!
- Always examine your elliptical trainer before using to ensure all parts are in working order.
- Do not leave children unsupervised near or on the exercise unit.
- Never operate the elliptical trainer where oxygen is being administered or where aerosol products are being used.
- Never insert any object or body parts into any opening.
- Service to your Keys Elliptical Trainer should only be performed by an authorized service representative, unless authorized and/or instructed by a Keys technician. Failure to follow these instructions will void the warranty.

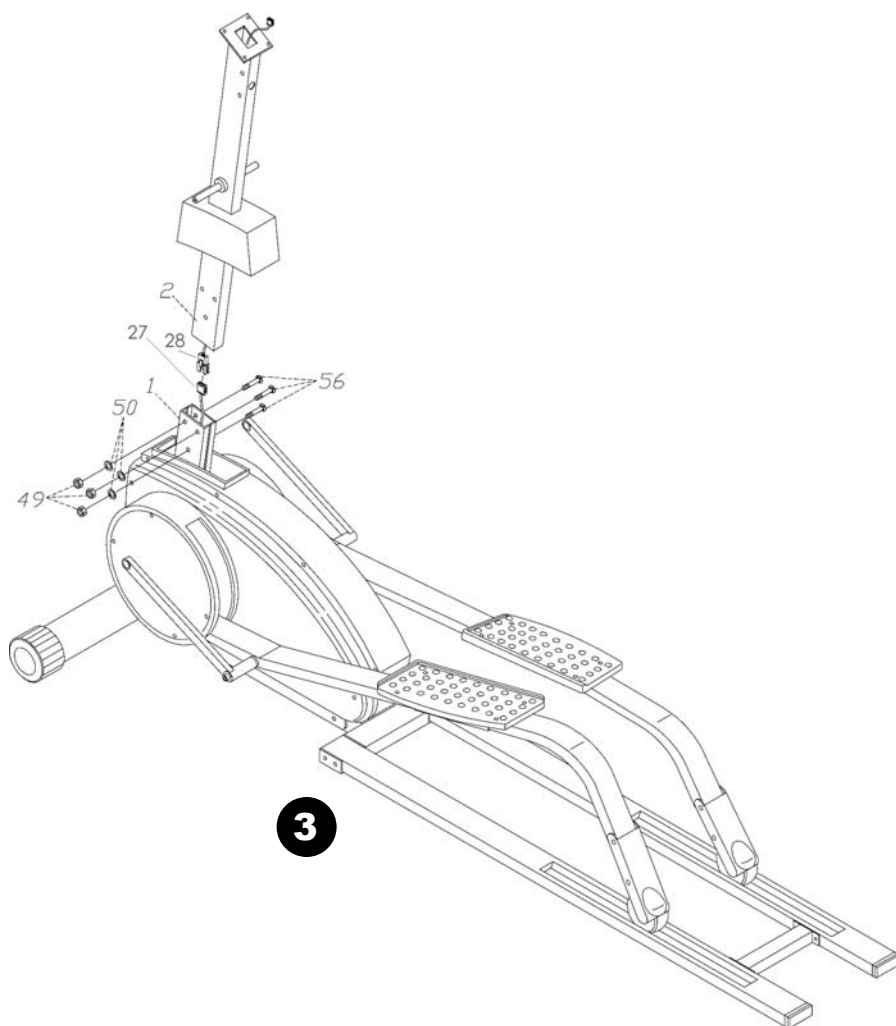
Assembly of CardioMax 850 Elliptical Trainer

REMOVE ALL SECURITY TAPE AND WRAPPING
BEFORE BEGINNING.

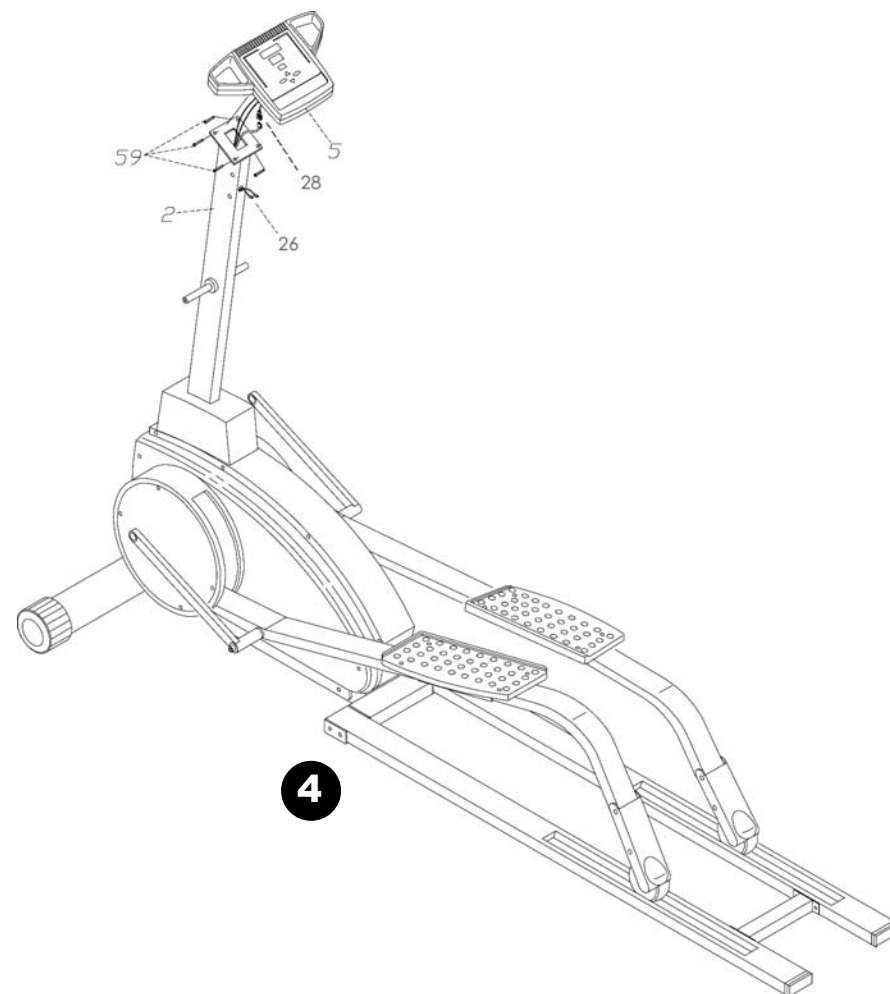
1. Attach the Aluminum Extrusions (45) to the Main Frame Assembly (1) with Screws (63). Connect the Aluminum Extension Plate (34) between the Extrusions (45) with Screws (64).



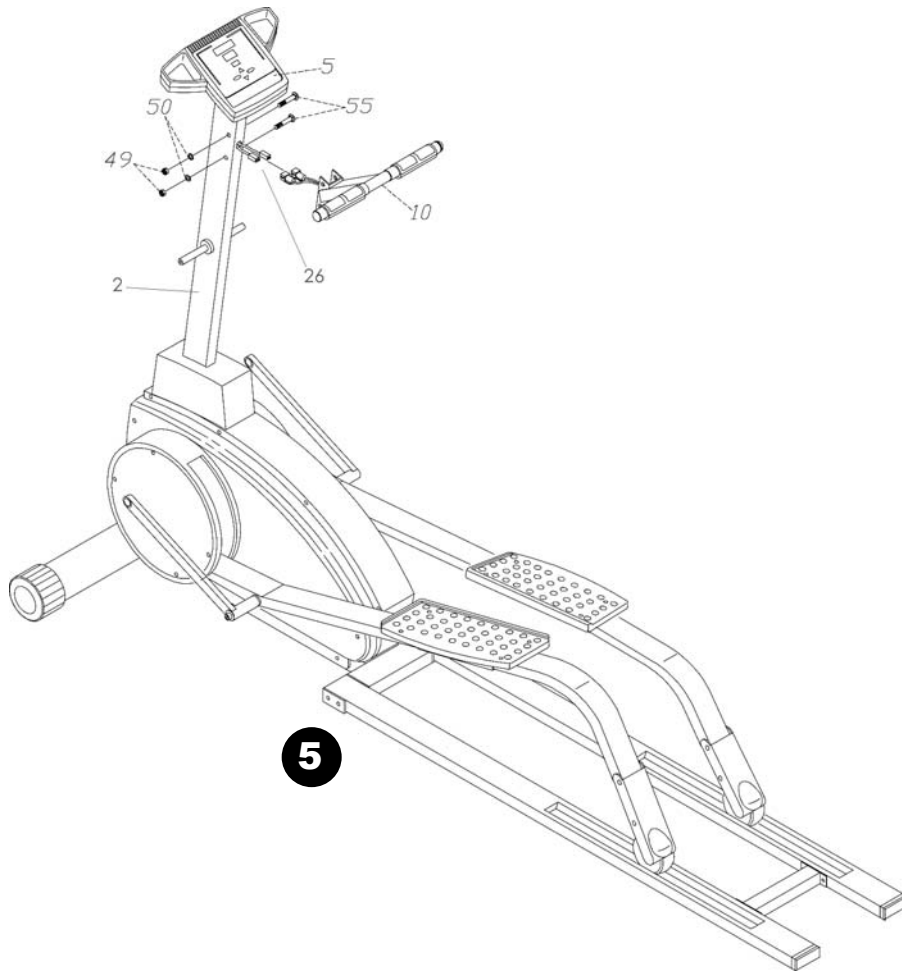
2. Attach both the Left and Right Rear Foot Frames (32, 33) to the Left and Right Front Foot Frames (30,31) with Carriage Bolts (62) and Locknuts (49).



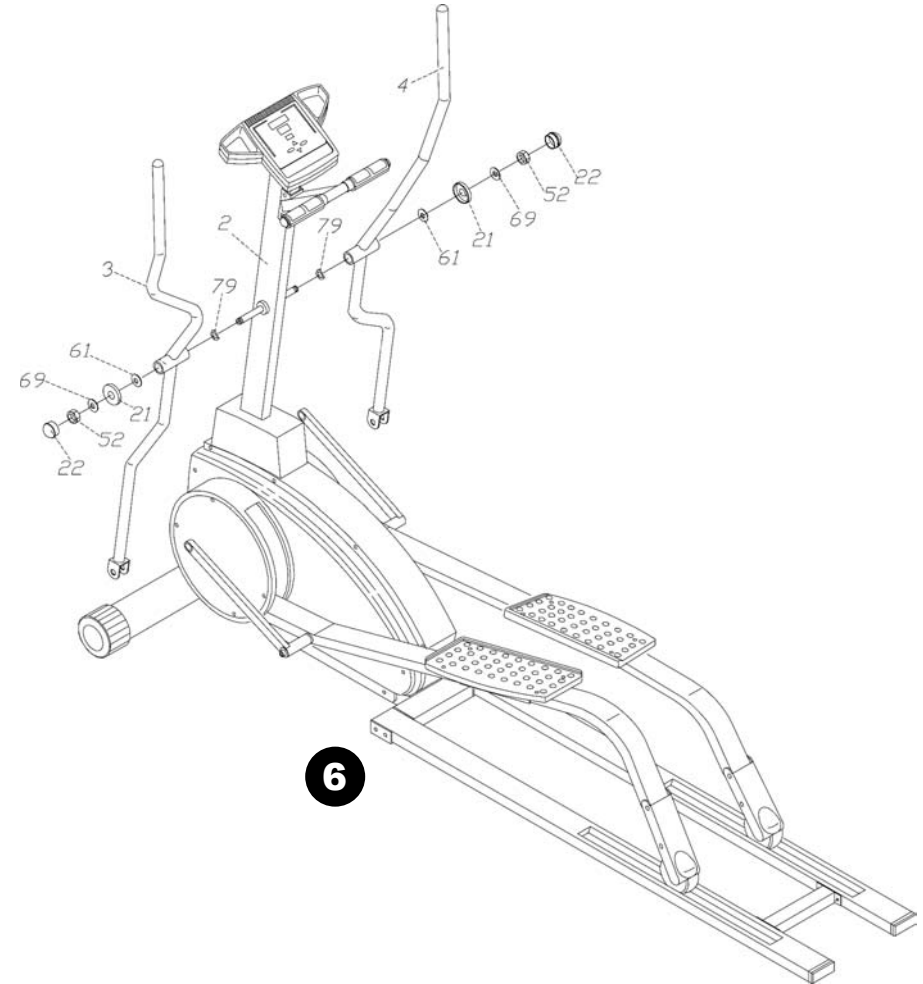
- 3.** First connect the Controller Extension Wire (27). Then slide the Main Upright (2) onto the Main Frame Assembly (1) and secure with Screws (56), Flat Washers (50) and Locknuts (49).



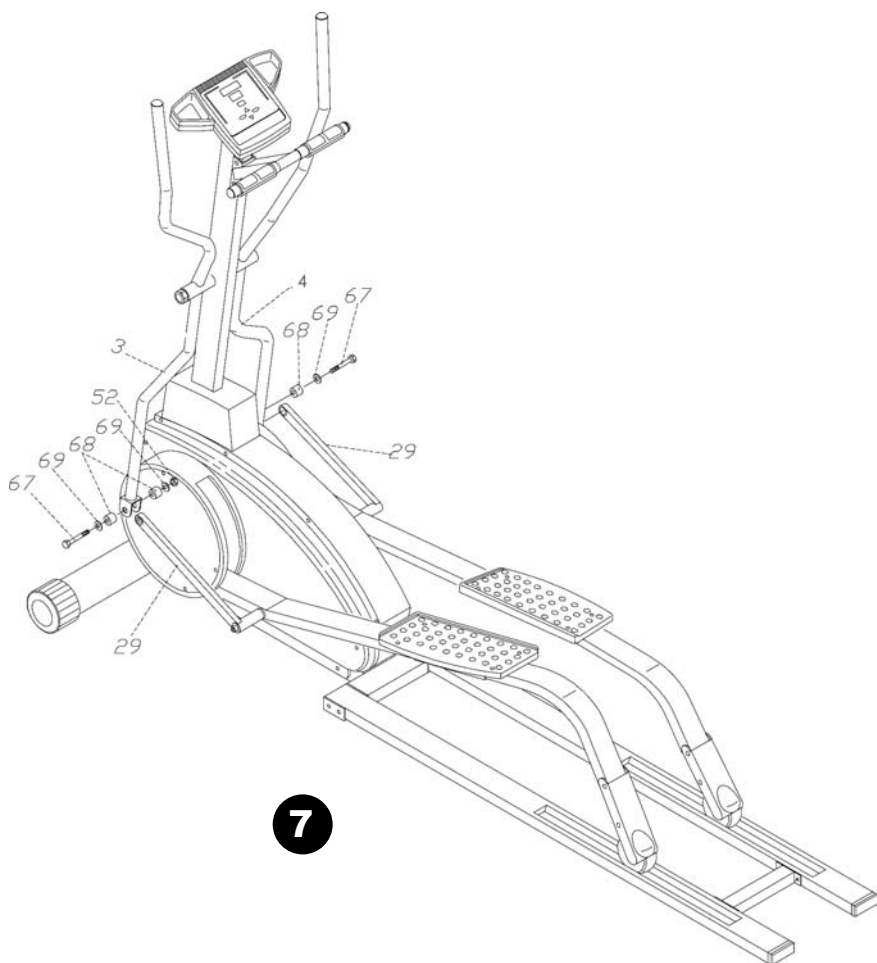
- 4.** Feed the two Pulse Wires (26) from the Console (5) down into the Main Upright (2) and out the handlebar hole. Connect the Controller Wire (28) to the Console (5). Then connect the Monitor (5) to the Main Upright (2) with Screws (59).



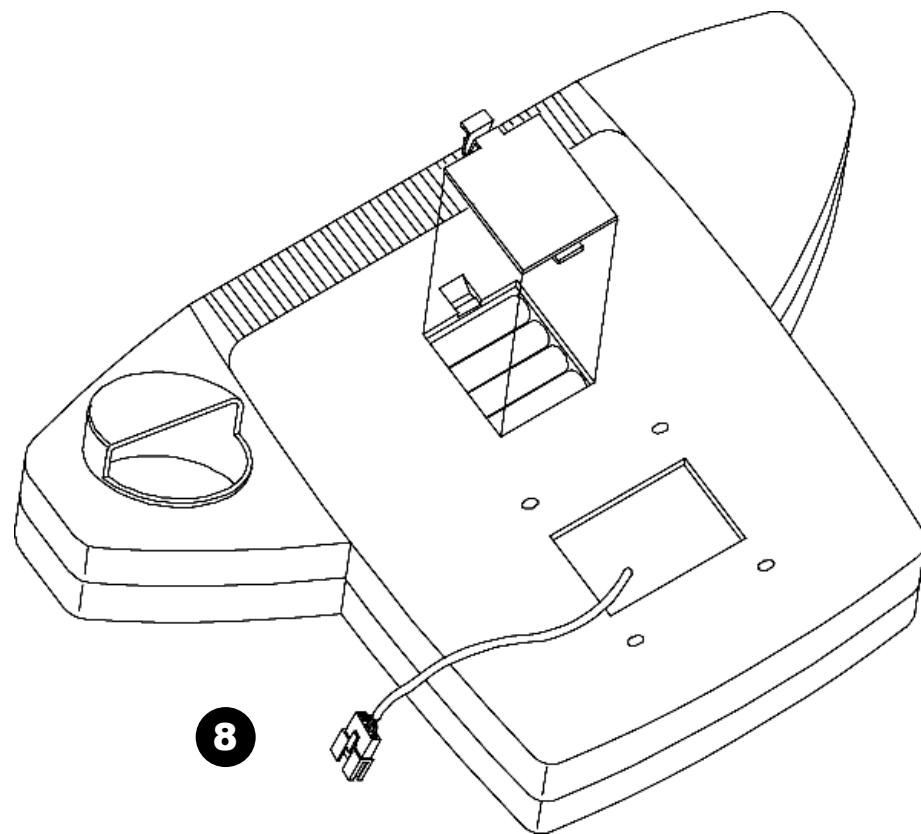
- 5.** First connect the Pulse Wires (26) to the T-Shaped Handlebar (10). Then connect the T-Shaped Handlebar (10) to the Main Upright (2) with Screws (55), Flat Washers (50) and Locknuts (49).



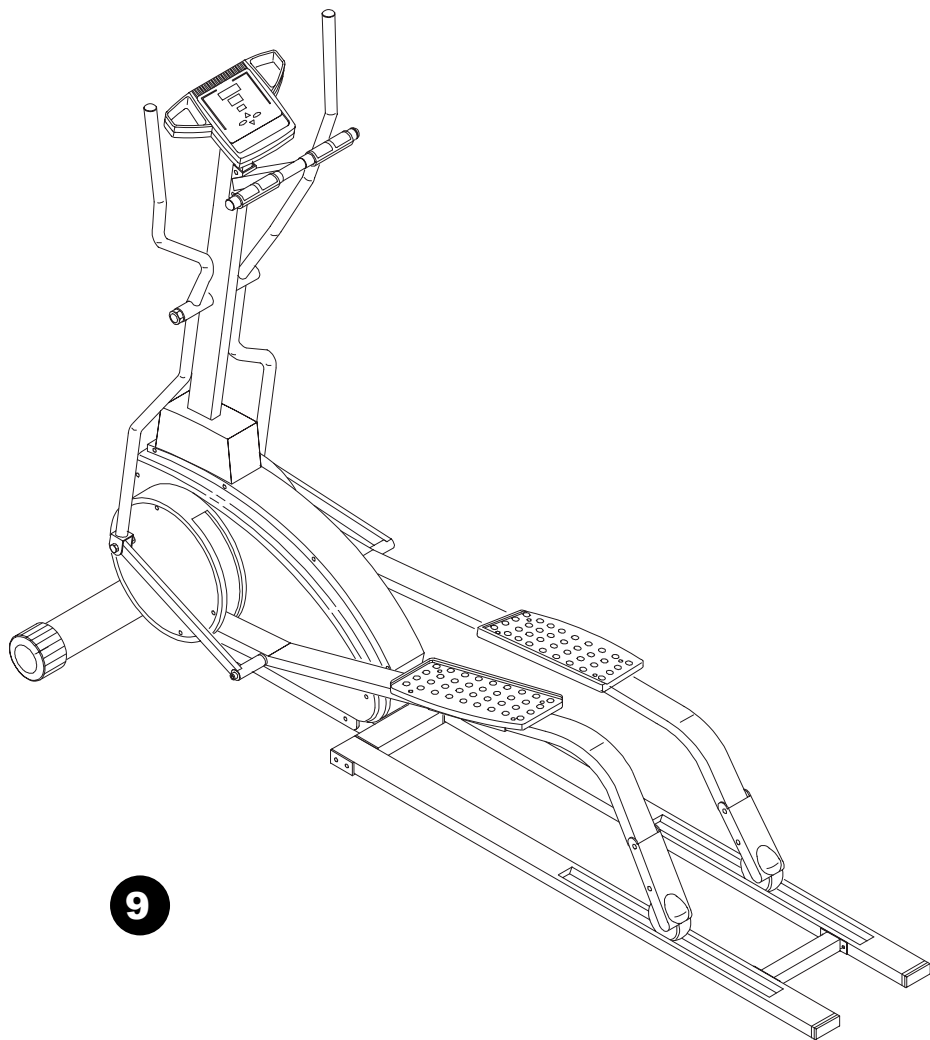
- 6.** Curved Washers (79) should already be on Main Upright posts. Slide the left and right handlebars (3, 4) onto the Main Upright (2). Secure handlebars with Washers (61), Snap Caps (21), Washers (69), Nuts (52), and Nut Caps (22).



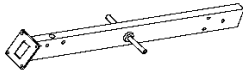


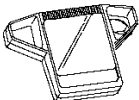
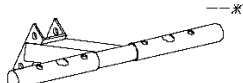
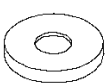

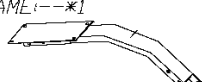
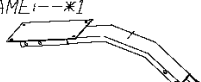

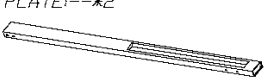


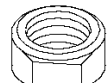
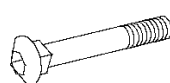
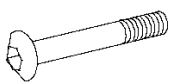


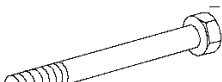
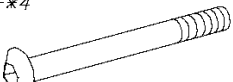

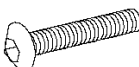
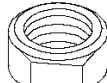


- 7.** Secure the Connecting Arms (29) to the left and right handlebars (3, 4) with Screws (67), Washers (69), Caps (68), and Nuts (52).



- 8.** Insert the batteries provided into the back of the Monitor (5)



9. You have completed the assembly of your CardioMax 850 Elliptical Trainer.

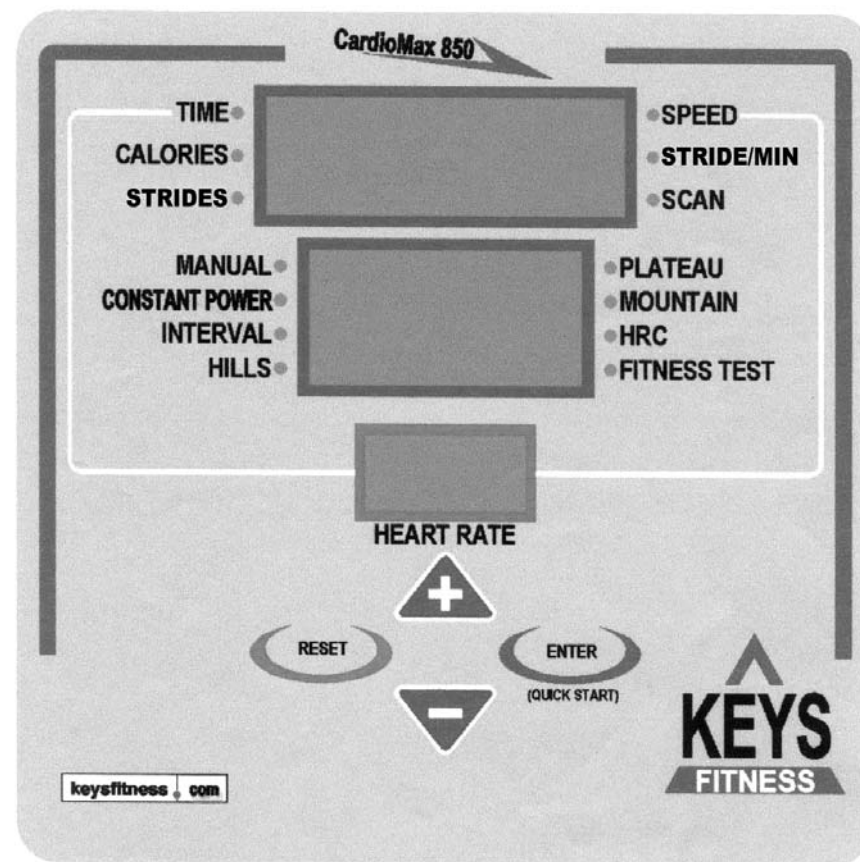
<p>(2) MAIN UPRIGHT:--*1</p> 	<p>(3) LEFT FOAM HANDLE:--*1</p> 	<p>(4) RIGHT FOAM HANDLE:--*1</p> 
<p>(5) MONITOR:--*1</p> 	<p>(10) T-SHAPED HANDLEBAR:--*1</p> 	<p>(21) SNAP CAP: --*2</p> 
<p>(22) BUSHING CAP: --*2</p> 	<p>(32) LEFT REAR FOOT FRAME:--*1</p> 	<p>(33) RIGHT REAR FOOT FRAME:--*1</p> 
<p>(34) ALUMINUM EXTENSION PLATE:--*1</p> 	<p>(45) ALUMINUM EXTENSION PLATE:--*2</p> 	<p>(49) M8 LOCKNUT:--*9</p> 
<p>(50) M8 ID*18.8mm OD FLAT WASHER:--*5</p> 	<p>(52) M10 NUT: --*8</p> 	<p>(55) M8*57mm SCREW:--*2</p> 
<p>(56) M8*60mm SCREW:--*3</p> 	<p>(59) M5*10mm SCREW:--*4</p> 	<p>(61) M10*38mm WASHER:--*4</p> 
<p>(62) M8*80mm SCREW:--*4</p> 	<p>(63) M8*100mm SCREW:--*4</p> 	<p>(64) M8*15mm SCREW:--*4</p> 
<p>(67) 5/8"*62mm SCREW:--*2</p> 	<p>(68) 1/2" NUT: --*4</p> 	<p>(69) M13*24mm WASHER:--*2</p> 
<p>(79) M26 CURVED WASHER:--*4</p> 		

850 ELLIPTICAL PARTS LIST

NO.	PART	QTY	NO.	PART	QTY
1	MAIN FRAME ASSEMBLY	1	29	CONNECTING ARM	2
2	MAIN UPRIGHT	1	30	LEFT FRONT FOOT FRAME	1
3	LEFT FOAM HANDLE	1	31	RIGHT FRONT FOOT FRAME	1
4	RIGHT FOAM HANDLE	2	32	LEFT REAR FOOT FRAME	1
5	MONITOR	1	33	RIGHT REAR FOOT FRAME	1
6	PULLEY	1	34	ALUMINUM EXTENSION PLATE	1
7	GENERATOR	1	35	6004 PRECISE BEARING	6
8	CONTROLLER BOARD	1	36	608 PRECISE BEARING	8
9	V-BELT	1	37	38mm HANDLEBAR SLEEVE	2
10	T-SHAPED HANDLEBAR	1	38	76mm BUSHING	4
11	BOTTOM LEFT HOUSING	1	39	BELT TENSION BRACKET	1
12	BOTTOM RIGHT HOUSING	1	40	ADJUSTMENT CHANNEL	2
13	TOP HOUSING	1	41	EYEBOLT	3
14	CONSOLE TUBE COLLAR	1	42	SPRING	1
15	ROUND COVER	1	43	IDLER PULLEY	1
16	ROOT PEDAL	1	44	ROLLER	2
17	END CAP	1	45	ALUMINUM EXTRUSION	2
18	ROLLER CAP	2	46	M6 LOCKNUT	4
19	FOOT CAP	1	47	M6 HEX NUT	3
20	WHEEL	2	48	M10 CAP NUT	2
21	SNAP CAP	2	49	M8 LOCKNUT	10
22	NUT CAP	1	50	M8 IDX18.8mm OD	
23	38mm BALL PLUG	1		FLAT WASHER	12
24	31.8mm BALL PLUG	1	51	M20X32X2mm WASHER	4
25	HAND PULSE	2	52	M10 NUT	10
26	PULSE WIRE	2	53	M8X17mm SCREW	1
27	CONTROLLER		54	M8X38mm SCREW	1
	EXTENSION WIRE	2	55	M8X57mm SCREW	2
28	CONTROLLER WIRE	1	56	M8X60mm SCREW	3

850 ELLIPTICAL PARTS LIST CONTINUED

NO.	PART	QTY	NO.	PART	QTY
			70	25mm BUSHING	8
57	TP4X12mm SCREW	46	71	NUT CAP	4
58	TP5X50mm SCREW	4	72	CRANK NUT	2
59	M5X10mm SCREW	4	73	LEFT CRANK	1
60	M6X15mm	8	74	RIGHT CRANK	1
61	M10X38 WASHER	4	75	SHAFT BUSHING	2
62	M8X80mm CARRIAGE BOLT	4	76	JOINITER	2
63	M8X100 mm SCREW	4	77	M8X30mm WASHER	2
64	M8X15mm SCREW	6	78	RETAINING RING	2
65	M10X55-8mm SCREW	2	79	M26 CURVED WASHER	4
66	M10X48 MACHINE SCREW	2	80	M16X28 WASHER	2
67	M10X58mm SCREW	2	81	M8 NUT	3
68	15.8X10X4.3 CAP	4	82	38mm END CAP	2
69	M10X23mm WASHER	4	83	31.8mm END CAP	2
			84	13.7 X 10X8 CAP	4



850 Display Instructions

Your Keys Elliptical Trainer 850 is equipped with a programmable monitor to help you track your progress and motivate you to reach your fitness goals.

In order to set your programmable monitor, you must begin stepping. The monitor will come to life and prompt you for the following:

850 DISPLAY INSTRUCTIONS

CONTINUED

ENTER WEIGHT

Use the up and down arrows to set your weight, then press the Enter key.

SELECT PROGRAM

Use the up and down arrows to scroll through the optional programs. Once the desired program is displayed, press Enter.

WORKOUT TIME

Use the up and down arrows to select your workout time, then press the Enter key.

PRESS ENTER TO BEGIN

You must press the Enter key again to begin your workout.

If you select the Fat Burn program, then you will also be prompted for your workout time, age, and target heart rate (see back of owner's manual for more information on how to calculate your target heart rate).

During both the Fit Test and Fat Burn programs, you will need to maintain contact with the heart rate sensors as much as possible.

Press the Program button at any time to reset the monitor.

During your workout, press the Enter key to toggle through the displays. Leave in the Scan mode for the computer to automatically cycle through all displays.

Monitoring Your Heart Rate

To obtain the greatest cardiovascular benefits from your exercise workout, it is important to work within your target heart rate zone. The American Heart Association (AHA) defines this target as 60%-75% percent of your maximum heart rate.

Your maximum heart rate may be roughly calculated by subtracting your age from 220. Your maximum heart rate and aerobic capacity naturally decreases as you age. This may vary from one person to another, but use this number to find your approximate effective target zone. For example, the maximum heart rate for an average 40 year-old is 180 bpm. The target heart rate zone is 60%-75% of 180 or 108-135 bpm. See *Fitness Safety* on page 20.

Before beginning your workout, check your normal resting heart rate. Place your fingers lightly against your neck, or against your wrist over the main artery. After finding your pulse, count the number of beats in 10 seconds. Multiply the number of beats by six to determine your pulse rate per minute. We recommend taking your heart rate at these times; at rest, after warming up, during your workout and two minutes into your cool down, to accurately track your progress as it relates to better fitness.

During your first several months of exercising, the AHA recommends aiming for the lower part of the target heart rate zone- 60%, then gradually progressing up to 75%.

According to the AHA, exercising above 75% of your maximum heart rate may be too strenuous unless you are in top physical condition. Exercising below 60% of your maximum will result in minimal cardiovascular conditioning.

Check your pulse recovery rate – If your pulse is over 100 bpm five minutes after you stop exercising, or if it's higher than normal the morning after exercising, your exertion may have been too strenuous for your current fitness level. Rest and reduce the intensity next time.

Fitness Safety

The target heart rate chart indicates average rate zones for different ages. A variety of different factors (including medication, emotional state, temperature and other conditions) can affect the target heart rate zone that is best for you. Your physician or health care professional can help you determine the exercise intensity that is appropriate for your age and condition.

(MHR) = Maximum Heart Rate

(THR) = Target Heart Rate

$220 - \text{age} = \text{maximum heart rate (MHR)}$. $\text{MHR} \times .60 = 60\%$ of your heart rate.

$\text{MHR} \times .75 = 75\%$ of your maximum heart rate.

For example, if you are 30 years old, your calculations will be as follows:

$$220 - 30 = 190$$

$$190 \times .60 = 114 \text{ (low end or 60\% of MHR)}$$

$$190 \times .75 = 142 \text{ (high end or 75\% of MHR)}$$

For a 30 year-old the (THR) Target Heart Rate would be 114-142.

See Table on right for additional calculations.

TARGET HEART RATE ZONE

